Operations Manual

VS15XAD VITALSCREEN MEDICAL GRADE MONITOR FAMILY

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Planar VS15XAD VitalScreen Medical Grade Monitor Family

The Planar VS15XAD VitalScreen Medical Grade Monitor family is a set of high-resolution color monitors designed to be versatile and easy to use. These monitors can accept either analog or digital video input and display most video standards from 640 x 480 (Video Graphics Array, or VGA, standard) to 1024 x 768 (Extended Graphics Array, or XGA, standard). The controls located on the front panel allow you to easily adjust the monitor's display parameters using on-screen display (OSD) menus.

The monitor's video input is a single-link, transition minimized differential signaling (TMDS) digital visual interface (DVI) and is compliant with the Digital Display Working Group (DDWG) DVI standard. This interface produces the sharpest display image possible with little need for adjustment. Setup is simple: just plug in the monitor and use.

The monitor uses a mounting plate that conforms to the Video Electronics Standards Association (VESA) mounting standard[1]. That configuration allows the monitor to be mounted in a variety of ways, such as on a wall bracket or swing arm. An alternate configuration with a desk stand is also available for easy use on flat work surfaces.

The architecture of the Planar VS15XAD VitalScreen Medical Grade Monitor incorporates an active matrix liquid-crystal display (AMLCD) panel that produces a clear display with low radiation emission, greatly reducing the radiation-related health concerns associated with cathode-ray tube monitors.

[1] The VESA Flat Panel Monitor Physical Mounting Interface (FPMPMI) Standard defines physical mounting interfaces for flat panel monitors, corresponding standards for flat panel monitor mounting devices and associated cable, cable connectors and power supply location guidelines. For more information, see http://www.vesa.org/.

Cleaning Instructions

The VS15XAD VitalScreen Medical Grade Monitor will continue to operate normally while being cleaned in a fashion normal for a hospital environment. That includes cleaning with a damp (wrung out), mild soapy cloth. Drip protection is provided in accordance with IPX1 rating defined in the IEC/EN60529 standard.

The VS15XAD VitalScreen Medical Grade Monitor family withstands nonabrasive cloths and cleaning solutions used in hospitals for like equipment. That would typically include warm water and mild detergent for all surfaces or 70 percent isopropyl alcohol for the touch-screen surface. Possible cleaning solutions include these:

- 70 percent isopropyl alcohol
- 1.6 percent aqueous ammonia
- Cidex® (2.4 percent glutaraldehyde solution)
- Sodium hypochlorite (bleach) 10 percent
- "Green soap" United States Pharmacopoeia (USP)
- 0.5 percent Chlorhexidine in 70 percent isopropyl alcohol
- Ovation®
- Formula 409®
- Fantastic®
- WexCide®

To clean the screen, do not spray liquid cleaners directly onto it. Stand away from the monitor and spray the cleaning solution onto a nonabrasive cloth. Without applying excessive pressure, clean the screen with the slightly dampened cloth.

Safety Instructions

- Do not place the monitor near a window. Exposing the monitor to rain, water, moisture or constant direct sunlight can severely damage it.
- Do not place anything on top of the monitor-to-computer signal cord. Make sure the cord is placed where it will not be stepped on.
- Do not apply excessive pressure to the screen. Excessive pressure may cause permanent damage to the display.
- The monitor and power supply units have no user-serviceable parts inside, except for the backlight lamp assemblies. Refer all servicing to qualified personnel to maintain your warranty.
- Do not cover or obstruct the venting holes on the back of the monitor.
- Store the monitor within -20° to +65° Celsius. Storing your monitor outside that temperature range could result in permanent damage. Please store the monitor in its original shipping carton.
- If any cord or cable is frayed or damaged, immediately replace it with another of the same type and rating as supplied by Planar. See "Ordering Information" on page 22 for part numbers. The safety and regulatory listings and certifications are based on the cable supplied by Planar.
- If the monitor has been exposed to liquid, it has been dropped, or if its case has been damaged, it may pose a shock or fire hazard; immediately unplug it and contact customer service for assistance.

- Use only the power adapter that has been tested and approved for use with this monitor product. See “Ordering Information” on page 22 for part numbers.

Caution: The power adapter must be plugged into a GROUNDED power outlet.

- To clean the power adapter, use a cloth dampened with liquid cleaner on the outside of the enclosure and cable only. Do not immerse the product in liquid, or a safety hazard could arise during use.
- Do not use the power adapter near flammable anesthetics.

Disposal Information

This monitor contains cold cathode fluorescent lamps, which contain a maximum of 12 milligram (3 milligram per lamp) of mercury. Please follow local ordinances or regulations for its disposal.

Regulatory Compliance

This monitor has been tested and found to comply with IEC/EN 60601-1 and IEC/EN 60601-1-2 standards by TÜV Rheinland and is certified by CSA International to meet medical standard C22.2 No. 601.1-M1990 (C US Mark).

Because many medical offices are located in residential areas, the medical monitor, in addition to meeting medical requirements, has also been tested and found to comply with the limits for Federal Communications Commission (FCC) Class B computing devices in a typically configured system. It is the system integrator or configurer’s responsibility to test and ensure that the entire system complies with applicable electromagnetic compatibility (EMC) laws.

Planar Systems, Inc. has made great efforts to support the medical device industry, in particular medical device manufacturers and medical device system integrators. We offer state-of-the-art color displays that are compliant with worldwide accepted medical device safety standards, and for the European market, CE-marked displays based on compliance with counsel directive 93/42/EEC—commonly referred to as the Medical Device Directive (MDD). The following summarizes our qualification of these displays as it relates to compliance with the MDD.

The European Medical Device Directive requires that the intended use of the device be defined. The intended use of these displays is “to display alphanumeric, graphic and image data as inputted from any type of medical device.” These displays do not provide a measurement function in any way, and it is the device and systems manufacturers responsibility to verify its function in the integrated device or system.

The display was classified as required by the MDD according to Annex IX of the directive and the medical device (MEDDEV) guidance available at the time of classification. Because the display uses electrical energy and has no direct patient connections and—by itself—no medical utility, the display is classified according to Rule 12 as an MDD Class I device–component or accessory. The MDD states that manufacturers of Class I medical devices or accessories shall satisfy the requirements in regard to design and manufacturing controls, i.e., the applicable assessment route to be used for CE-marking under the MDD, and it shall carry the CE-mark according to Annex XII of the directive, with no notified body annotation.

The applicable safety standards for an MDD Class I display are IEC/EN 60601-1: 1990 along with Amendments 1 and 2. To help the medical device designer evaluate the suitability of these displays, Planar has also conducted EMC testing to IEC 60601-1-2 as it can be applied. The display with its power supply alone does not represent a functional medical device. Hence, Planar configured a minimal operating system to exercise the display. The resulting data is made available to interested parties.

The data is informative data, not certification data. Certification data must be obtained by the device or system integrator according to Article 12 of the MDD titled “Particular procedure for systems and procedure packs.” Paragraph 2 clearly outlines the device or system integrator’s responsibility in this matter.

In summary, Planar Systems, Inc. is CE-marking these displays under the Medical Device Directive, which establishes compliance to the basic medical safety standards. However, EMC compliance can only be accomplished in the configured medical device or system and is the responsibility of the device or system manufacturer. Planar has the necessary documentation such as IEC 60601-1 notified body and other third-party test reports and certifications, a risk/hazard analysis, an essential requirements checklist, and Planar’s International Electrotechnical Commission (IEC) declaration of conformity.

Planar Systems, Inc. located in Beaverton, OR, USA is the manufacturer of these displays in the meaning of the directive. As required by the MDD in Article 14, Planar Systems, Inc. not residing in the European Economic Area (EEA) has a European Representative, Planar Systems, Inc.—Espoo, Finland.

In the opinion of Planar Systems, Inc. registration required to put this device into commerce is the responsibility of the medical device/system manufacturer, and Planar supports this requirement by providing a European Commission (EC) declaration of conformity. If Planar supplies a display to an end user, rather than a device manufacturer, it is the end user’s responsibility to ensure continued compliance with the MDD of the system in which the display is integrated.

For vigilance reporting as required under Article 10 of the MDD, Planar Systems, Inc. will provide any information requested by competent authority to support any reported incident investigation by such an authority.

European Union Declaration of Conformity for Medical Applications

A Declaration of Conformity has been filed for this product. For additional copies of the Declaration of Conformity document, please contact Planar Systems, Inc. and request document number 001-0014-03 “Declaration of Conformity.”

Symbol Explanations

Following are explanations of the symbols found on the monitor or power adapter.

Indicates proof of conformity to applicable European Economic Community Council directives and two harmonized standards published in the official journal of the European Communities.

Indicates that it has been tested and certified by CSA to C22.2 No. 601.1-M1990. If this mark appears with the indicators “C” and “US,” the product is certified for the U.S. and Canadian markets, meeting the applicable U.S. and Canadian standards.

Indicates that it has been tested to comply with FCC Class B standards.

Indicates that it has been tested and certified by TÜV Rheinland in accordance with EN6061-1.

Consult accompanying documents.

Indicates protective earth ground.

Indicates indoor use only.

Identifies the socket for headphones.

Product Contents and Installation

Before unpacking the monitor, prepare a suitable workspace. You need a stable and level surface near a grounded wall outlet in an area that is relatively free of glare from sunlight or other sources of bright light. The monitor is cooled by natural convection (it lacks a fan). For best performance, do not block the cooling vents.

While unpacking the monitor, inspect it and other package contents for shipping damage that could cause a fire or shock hazard. Immediately report any shipping damage to the carrier or transportation company, and contact customer service for assistance. Keep all packing material in case you need to ship, store or return the monitor.

After unpacking the monitor, make sure the following items are included (see “Ordering Information” on page 22 for part numbers):

- Monitor
- 1.5-meter (5-foot) stereo audio cable
- AC power supply adapter with 1.5-meter (5-foot) cable
- 3-meter (9-foot) medical-grade power cord, which connects from the AC main supply to the AC adapter

  CAUTION: The AC adapter must be plugged into a GROUNDED power outlet.

- 2 meter (6-foot) analog video cable (DVI-VGA)
- 2 meter (6 foot) digital video cable (DVI-DVI)
- This operations manual
- EU Declaration of conformity

If you ordered the monitor with the resistive touchscreen option, the following item should also be included:

- 2 meter (6-foot) touch screen cable

Identifying Components

Front View

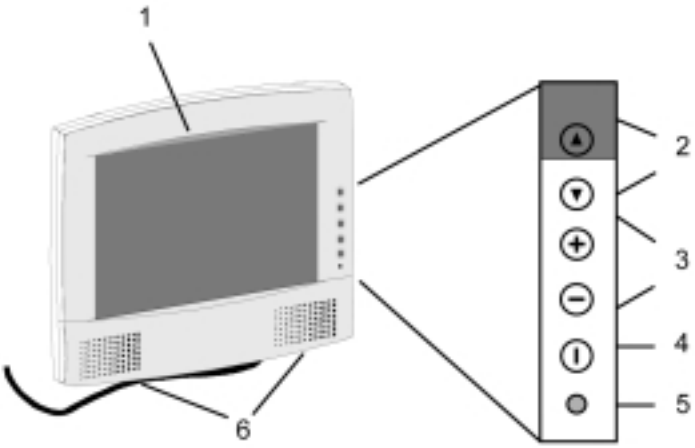


Figure 1: Controls and Front View

1. **Monitor Screen**
   The screen is capable of producing most display standards from 640 x 480 VGA to 1024 x 768 XGA.
2. **Function Buttons**
   Press the ⊙ button to access the OSD Main Menu.
   Press the ⊙ button to navigate through the different OSD menus

   When the OSD menu is displayed, press these buttons to select a control function.
3. **Adjustment Buttons**
   Use the ⊕ button to increase the selected setting. Use the ⊖ button to decrease the selected setting.
4. **Power Switch/On-Screen Display**
   Depress this button for two seconds to turn monitor on/off.
5. **Power-On Indicator**
   The Power LED is illuminated when monitor is on and blinks when the monitor is in power-saving mode.
6. **Stereo Speakers**
   Built-in amplifier and stereo speakers for sound. Connect the computer's audio-out port to the monitor's audio-in port using the supplied audio cable.

Rear View

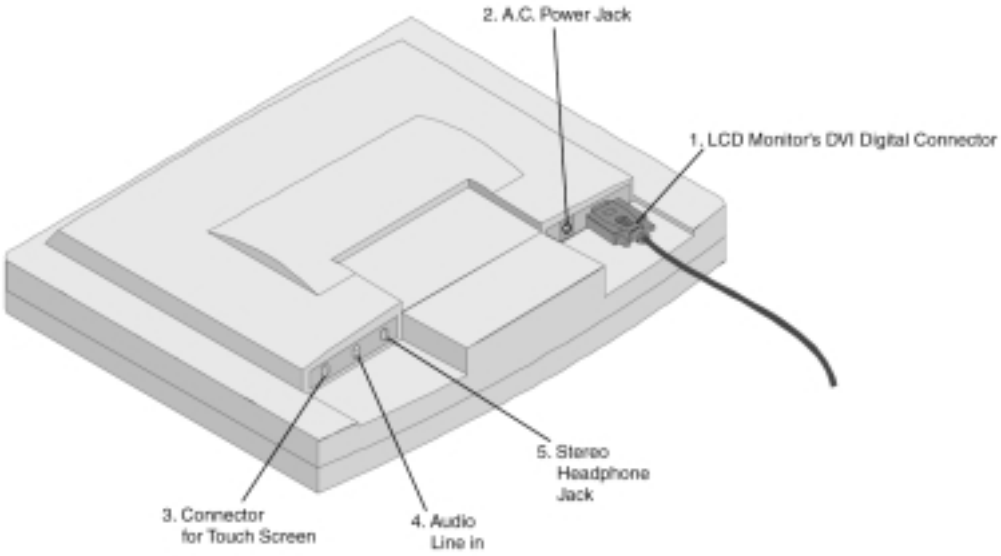


Figure 2: Monitor, Rear Ports

1. **Video Cable**
   Both an analog and a digital video cable are included. The analog video cable incorporates a male 29 pin locking DVI connector at one end and a male 15-pin D-sub connector at the other end. The digital video cable incorporates a male 29-pin DVI connector at one end and a male 24-pin DVI connector at the other end. Both cables are 2 meters long.
2. **Power Input Port** (locking/latching mini-Din 4-Pin)
   Connect the low-voltage cable from the power adapter to this port.
3. **Touchscreen Port**
   If this is a resistive touchscreen monitor, connect the system's touchscreen cable to this port.
4. **Audio Line-In Port**
   Connect the system's audio lineout to this port to listen to the system's audio on the monitor's stereo speakers. The system's CD-ROM line out can also be connected to this port.
5. **Stereo Headphone Port**
   Connect stereo headphones or powered external speakers to this port to listen to the system's audio output.

Note: When headphones are plugged in, the stereo speakers are turned off.

Connecting AC Power

1. Plug the receptacle end of the AC power cord into the AC power adapter, then plug the power connector of the adapter into the power port on the monitor. This power port is located on the back of the monitor near the DVI connector (Figure 3). The power connector should be oriented with the flat side of the connector facing away from the monitor body. Press firmly to engage the protective lock mechanism.

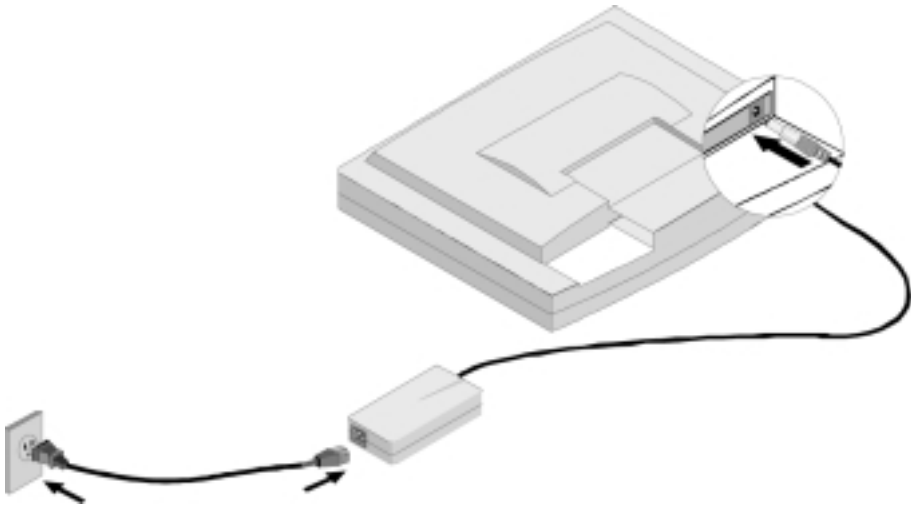


Figure 3: Connecting Power to the Monitor

2. Insert the plug end of the power cord into a grounded wall outlet. For added protection, use a surge protector between the AC adapter and the electrical wall outlet to prevent sudden current variations from reaching the monitor.

Connecting Video

1. With the power to the computer and the monitor turned off, connect the supplied video cable from the monitor to the computer's video port (Figure 4).

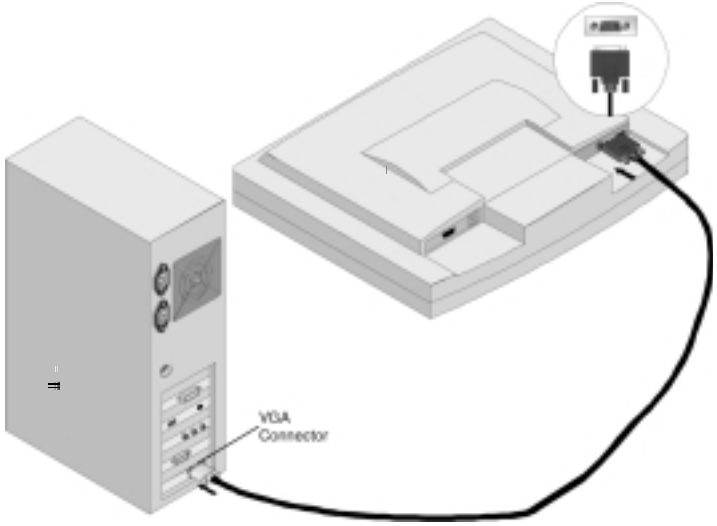


Figure 4: Connecting the Monitor to Your System

2. Make sure the video cable connector is securely connected to the video port on your computer.
3. Turn the monitor on first, and then turn on the computer.

Connecting Optional Stereo Speakers

1. Connect the supplied audio cable to the line-out port of the computer's audio card.
2. Connect the other end of the audio cable to the monitor's line-in port (see Figure 5, which also shows the video cable attached).

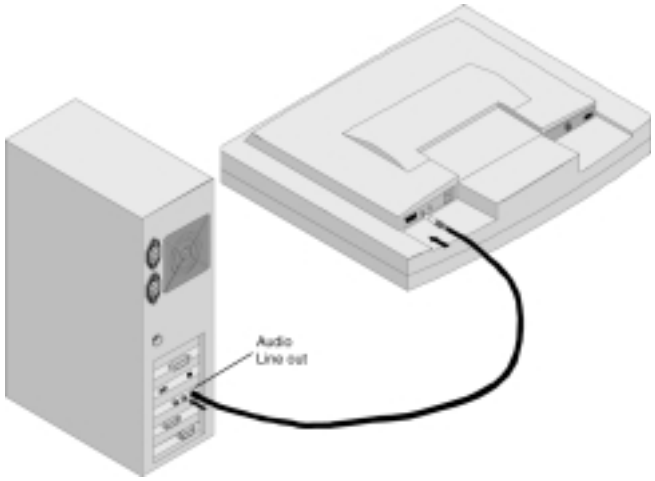


Figure 5: Connecting the Stereo Speakers

3. Adjust the sound volume of the stereo speakers by using the volume control function on the OSD.

Note: Planar does not recommend using the audio from the monitor speakers as the exclusive audio source in medical applications—especially as an alarm indicator.

Connecting the Optional Touchscreen

If your monitor has this optional feature, connect the monitor's 9-pin D-sub serial port to the computer's 9-pin RS-232 serial port using the cable that came with the touchscreen package.

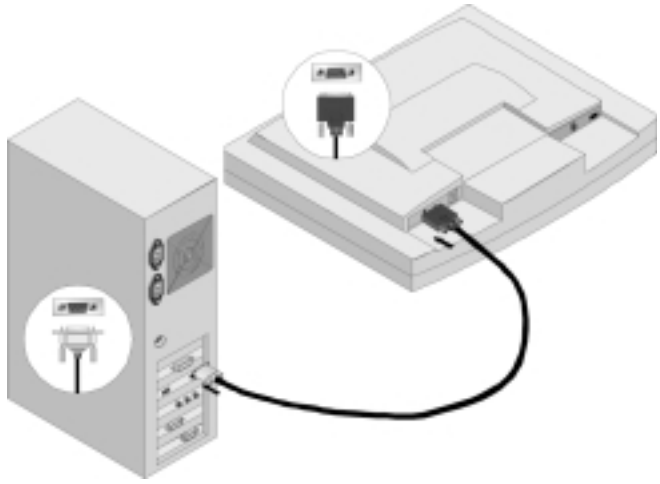


Figure 6: Connecting the Optional Touchscreen Cable

Next, connect the male end of the RS-232 cable to the 9-pin serial port at the back of the monitor (see Figure 6).

Note: Follow the instructions included on the enclosed CD for installing the touchscreen drivers on your system. If you have questions, contact your system provider or Planar Systems, Inc. at **www.planar.com** for the touchscreen driver and installation instructions. Following driver software installation, calibrate your touchscreen to the system following the procedure described on the enclosed CD.

Power Management System

The Planar VS15XAD VitalScreen Medical Grade Monitor complies with the VESA DPMS power management standard. This standard provides four power-saving modes, based on the monitor detecting the horizontal or vertical sync signals. The table below describes those four modes.

Mode	AC Input Power (including AC adapter)	LED Status
On With audio	40 watts maximum	Steady green
Without audio	37 watts maximum	Steady green
Standby	5 watts maximum	Blinking green
Suspend	5 watts maximum	Blinking green
Off	5 watts maximum	Off

When the monitor is in power saving mode or detects incorrect timing, the screen is blank and the power LED indicator blinks.

Using the On-Screen Display

The OSD makes adjusting the display settings quick and easy. Using the OSD, you can adjust the brightness, the volume, the OSD's position and the language for the options in the display. You can access the OSD whenever both the computer and monitor are on. If the computer is off or in power saving mode, the OSD is inaccessible.

Call up the OSD Main Menu by pressing the Function Select up button. Use the Function buttons to scroll through the menu items. When the desired sub-menu is displayed, use either Adjustment button to select the sub-menu. Then use the function buttons to select the desired function and the adjust buttons to make the needed changes.

OSD Main Menu

To access the OSD Main Menu, press the Function Select Up button.

The available control functions are grouped into categories. The monitor's selected mode of operation (either analog or digital) determines the available categories.

OSD Menu for Analog Operation		
	Basic	Change brightness, contrast and view DDC mode.
	Position	Change the display position.
	Miscellaneous	Adjust OSD position and display information about the monitor.
	Color	Adjust the color settings.

OSD Menu for Digital Operation		
	Digital Basic	Change brightness, contrast and view DDC mode.
	Miscellaneous	Adjust OSD position and display information about the monitor.

Function Menus

Each item in each category is described below.

Basic Menu

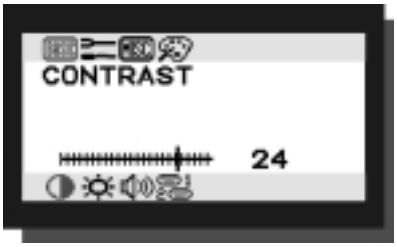


Figure 7. Basic Menu

Basic Setting Menu		
	CONTRAST	Adjust the contrast level of the display.
	BRIGHTNESS	Adjust the brightness of the display's backlight.
	VOLUME	Adjust the audio volume.
	DDC	Digital/Analog DDC mode (information only).

Position Menu

Figure 8. Position Menu

Position Menu		
	AUTO ADJUST	Automatically adjust the picture quality and alignment. It is recommended that you use this function in Microsoft™ Windows™ or similar environments. This function is not available in the interlaced modes of operation.
	PHASE	Adjust the screen display for focus and clarity.
	CLOCK	Adjust the display pixel alignment.
	H-POSITION	Adjust the display position horizontally.
	V-POSITION	Adjust the display position vertically.
	GRAPH/TEXT	Select Graph or Text expansion method while 640 x 400 or 720 x 400 mode. (Not available in all modes.)
	RESET	Reset all the parameters in this menu.

Miscellaneous Menu

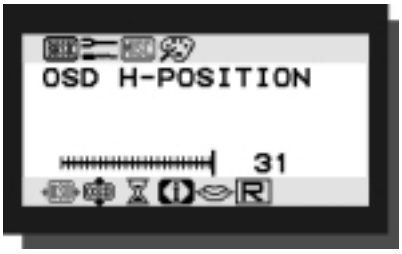


Figure 9. Miscellaneous Menu

Miscellaneous Menu		
	OSD H-POSITION	Adjust the OSD position horizontally.
	OSD V-POSITION	Adjust the OSD position vertically.
	MENU TIMER	Adjust the length of idle time before the menu display turns off (5, 10, 15, 20, 25, 30 seconds).
	INFORMATION	Display the incoming display mode and firmware version.
	LANGUAGE	Choose the appropriate language: English, French, German, Italian or Spanish.
	RESET	Reset all the parameters in this menu.

Color Menu

There are three sets of color temperature settings available: two for standard settings and one for user adjustment.

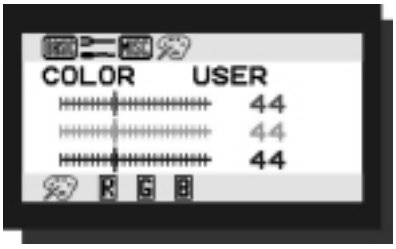


Figure 10. Color Menu

Color menu	
COLOR 9300	Set the color temperature of white to 9300° Kelvin.
COLOR 6500	Set the color temperature of white to 6500° Kelvin.
COLOR USER	Enable “User Color” selection, and adjust individual RGB levels.
R	Adjust red contrast.
G	Adjust green contrast.
B	Adjust blue contrast.

Digital Basic Menu

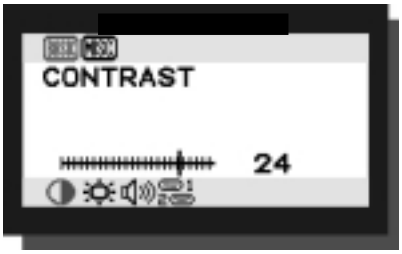


Figure 11. Digital Basic Menu

Digital Basic Setting Menu	
CONTRAST	Adjust the contrast level of the display.
BRIGHTNESS	Adjust the brightness of the display backlight.
VOLUME	Adjust the audio volume.
DDC	Digital/Analog DDC mode (information only).

Digital Miscellaneous Menu

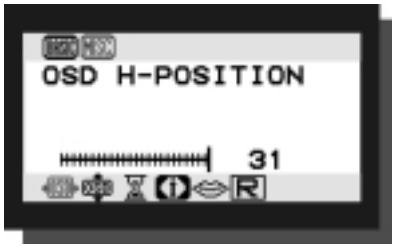


Figure 12. Digital Miscellaneous Menu

Digital Miscellaneous Menu	
OSD H-POSITION	Adjust the OSD position horizontally.
OSD V-POSITION	Adjust the OSD position vertically.
MENU TIMER	Adjust the length of idle time before the menu display turns off (5, 10, 15, 20, 25, 30 seconds).
INFORMATION	Display the incoming display mode and firmware version.
LANGUAGE	Choose the appropriate language: English, French, German, Italian or Spanish.
RESET	Reset all the parameters in this menu.

On-Screen Display Lockout

OSD Lock

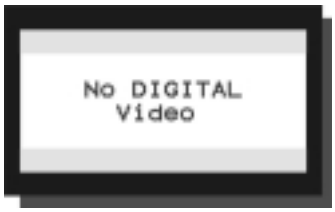
The monitor incorporates an OSD lockout function. Pressing the three controls **Function select down ⊙ , Adjust ⊕, Adjust ⊖**[Buttons 2, 3, 4] simultaneously will lock out the OSD. Monitor settings cannot be altered at this point, but navigation through the OSD menus is possible. An "OSD" lock is displayed at the bottom of the OSD menu. To unlock the OSD, press the same three controls in the same manner as locking the OSD.

DDC Change (Analog Mode to Digital Mode or Digital Mode to Analog Mode)

The monitor can be changed from Analog Mode to Digital mode or from Digital Mode to Analog Mode as follows:

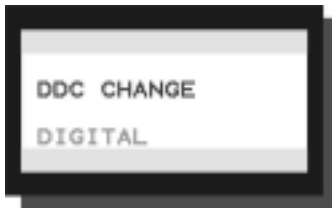
1. Ensure monitor power is "on" (steady or blinking power LED below OSD buttons).

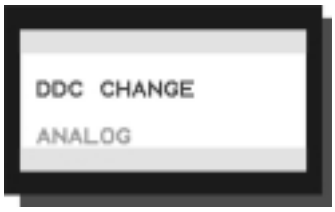
2. Disconnect video cable from the monitor. The display will indicate "No video"



3. Wait for the "no video" message to disappear.

4. Push the ⊙ and ⊖ buttons simultaneously. This creates a change in the DDC file and one of the following messages should appear.





The message on the left indicates a change from Analog to Digital mode. The message on the right indicates a change from Digital to Analog mode.

5. Plug the video cable into the monitor. The monitor should be displaying the supplied video input.

Technical Information

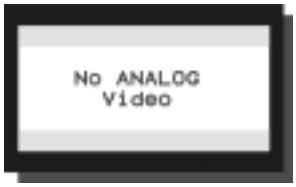
VS15XAD VitalScreen Medical Grade Monitor Family Specifications

Display Panel		15-inch (381 mm) XGA active matrix color TFT LCD
Display Colors		262,144 colors
Dimensions		408 x 333 x 85 mm (width x height x depth)
Weight		5 kilograms
Display Area		304.1 x 228.1 mm (width x height) 15 inch (380.1 mm) diagonal
Response Time		30 milliseconds ON and 25 milliseconds OFF max.
Viewing Angle		±80 ° typical (horizontal or vertical)
Contrast Ratio		400:1 typical
Brightness	Non-touch Resistive Touch	228 cd/m^2 typical 200 cd/m^2 typical
Pixel Pitch		0.297mm (width) x 0.297 mm (height)
Reliability	Monitor Backlight	40,000 hours mean time between failure (MTBF) 50,000 hours to reach 50% of initial brightness
Video Interface		Analog and digital video input. DDWG-compliant single link TMDS Digital Visual Interface (DVI) standard Version 1.0.
Scanning Frequency	Analog	Horizontal: 24–62 kHz Vertical: 50–90 Hz
	Digital	Horizontal: 30–64 kHz Vertical: 56–85 Hz
Power Consumption		40 watts maximum <5 watts in standby or off mode
Power Supply		12 volts / 3 amps, 36 watts Input power 100 volts AC to 240 volts AC at 50 to 60 Hz, AC Adapter (external)
Audio		Stereo speakers: 1 watt amplifier Maximum input levels: 1 volt RMS typical Input impedance: 2000 ohms typical
Stereo Headphone Jack Output		Output power: 1 watt at 8 ohms
Temperature	Operating Non-operating	0 to 40 °C -20 to 65 °C
Humidity	Operating Non-operating	10 to 93 percent relative humidity non-condensing 0 to 95 percent relative humidity non-condensing
Altitude	Operating Non-operating	0 to 3500 meters 0 to 1220 meters
Shock		50g, 11 milliseconds duration operating/non-operating. Half sine with three shocks on each of six axes
Regulatory		See “Regulatory Compliance” on page 3 for details.

Troubleshooting Procedures

PROBLEM: Display Indicates “No Video”

When the monitor is on and no video signal is being received, the following message displays until the monitor enters power-saving mode:



Check to ensure that the video cable is connected to the user system and the monitor. See “PROBLEM: No Image on Monitor” on page 18 for more information.

PROBLEM: No Image on Monitor

1. Make sure that the power indicator on the monitor is illuminated, all connections are secure, and the system is running on a supported video timing mode.
2. If the power LED is not illuminated, make sure the AC power connector is securely connected. If the AC adapter has an LED, verify that the LED is illuminated. If it is not, contact your dealer for assistance.
3. Turn the monitor off and then turn it back on.
4. If one is available, connect your system to another VitalScreen monitor. If the system functions properly with the alternate VitalScreen monitor but it does not function with the VS15XAD monitor, and the VS15XAD monitor’s power LED is blinking, the output timing of the computer’s video board may be out of the monitor’s synchronous range. Please change to an alternate mode (listed in “Technical Information” on page 17) or connect to an alternate video source and repeat steps 1 and 2.
5. Ensure that the computer’s video port is enabled. This is a function of the video board in the user computer system. See the video board documentation for instructions on how to enable the video port.
6. If the system does not function with either the alternate VitalScreen monitor or the VS15XAD monitor, contact technical support at your system provider.

Description of Warranty

Planar Systems, Inc. (Planar) warrants that the goods sold hereunder will be free of defects in materials and workmanship, and such goods will substantially conform to the specifications furnished by Planar, and to any drawings or specifications furnished to Planar by the Buyer if approved by Planar. This warranty shall be effective only if Planar receives notice of such defect or nonconformance during the period of the warranty. Planar's sole and exclusive liability for breach of warranty shall be, at Planar's option, to repair or replace the Planar product(s) with refurbished units or provide a credit to Buyer in the amount of the purchase price.

Commencement and Duration of Warranty

The warranty period begins on the date of shipment from Planar. The goods sold hereunder are warranted for a period of 36 months from date of shipment unless otherwise agreed to by Buyer and Planar. No extension of the warranty will be given during the time the goods are in Planar's possession.

Place of Repair or Replacement

To obtain service under this warranty, Buyer must notify Planar of the defect before expiration of the warranty period and request a "Return Material Authorization Number." If the configuration has been modified in any manner, the product must be returned to its original configuration before any warranty service will be performed by Planar. No goods are to be returned to Planar without prior authorization. Buyer will be responsible for packaging and shipping the defective goods to the appropriate Planar Service Facility. For North America, the service facility is located in Beaverton, Oregon; for Europe, the service facility is located in Espoo, Finland.

Limitation of Warranty

The foregoing warranty shall not apply to defects resulting from (a) improper or inadequate maintenance by Buyer; (b) unauthorized modification of the goods; (c) operation of the goods outside the environmental specifications of the goods; (d) neglect, misuse or abuse of the goods; or (e) modification or integration with other goods not covered by Planar's warranty when such modification or integration increases the likelihood of damage to the goods.

THE WARRANTY IS GIVEN BY Planar IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED. Planar DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Planar'S RESPONSIBILITY TO REPAIR OR REPLACE DEFECTIVE PRODUCTS IS THE SOLE AND EXCLUSIVE REMEDY PROVIDED TO THE BUYER FOR BREACH OF THIS WARRANTY. Planar WILL NOT BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES IRRESPECTIVE OF WHETHER Planar HAS ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

The warranty set forth above shall not be enlarged, diminished or affected by, and no obligation or liability shall arise from, Planar, any authorized dealer or any other person's rendering of technical advice, assistance or services in connection with the Buyer's order of the goods furnished hereunder. The Buyer is not relying on Planar's skill or judgment to select or furnish suitable goods.

Installation

Planar makes no warranty with respect to any installation of Planar's product(s) by Planar, any authorized dealer or any other person.

Technical Assistance

In North America, for technical assistance please call +1(503) 748 1100 between 8 A.M. and 5 P.M. PST, Monday through Friday or send a description of your technical issues and email address to app_eng@planar.com.

In Europe, for technical assistance please call +358 9 420 01 between 8 A.M. and 4 P.M. Finnish Time (Eastern European Time), Monday through Friday or send a description of your technical issues and email address to tech_support@planar.com.

Repair Service

In North America, if your VitalScreen Medical Grade Monitor needs service, call Planar at +1(503) 748 1100 between 8 A.M. and 4 P.M. PST, Monday through Friday or fax your request to +1(503) 748 1493. You will need the unit's serial number and a brief description of the problem to receive an RMA number..

In Europe, if your 15" Medical-Grade Monitor needs service, call Planar Customer Service at +358 9 420 01 between 8 A.M. and 4 P.M. Eastern European Time, Monday through Friday or fax your request to +358 9 420 0200. You will need the unit's serial number and a brief description of the problem to receive an RMA number.

To protect Planar employees from potential health hazards, Planar requires that the RMA product be **disinfected before returning to Planar for service**. Any product not cleaned prior to shipment **will be returned to the customer**.

Note: Returns are not accepted without an assigned RMA number.

In-transit damage is not covered by the warranty. We suggest you insure your shipment. Planar will only pay for the return shipment by surface transportation. It is the responsibility of the sender to prepay transportation charges.

Ordering Information

Product	Part Number
VS15XAD 15-Inch XGA VitalScreen Medical Grade Monitor with Desk Stand and US power cord (non touch)	996-0475-00
VS15XAD 15-Inch XGA VitalScreen Medical Grade Monitor with Desk Stand and European power cord (non touch)	996-0475-01
VS15XAD 15-Inch XGA VitalScreen Medical Grade Monitor with Universal Mounting Plate and US power cord (non touch)	996-0475-02
VS15XAD 15-Inch XGA VitalScreen Medical Grade Monitor with Universal Mounting Plate and European power cord (non touch)	996-0475-03
VS15XAD;TR 15-Inch XGA VitalScreen Medical Grade Monitor with Desk Stand and US power cord (resistive touch)	996-0476-00
VS15XAD;TR 15-Inch XGA VitalScreen Medical Grade Monitor with Desk Stand and European power cord (resistive touch)	996-0476-01
VS15XAD;TR 15-Inch XGA VitalScreen Medical Grade Monitor with Universal Mounting Plate and US power cord (resistive touch)	996-0476-02
VS15XAD;TR 15-Inch XGA VitalScreen Medical Grade Monitor with Universal Mounting Plate and European power cord (resistive touch)	996-0476-03

All products also include the following items:	
Cable, DVI-VGA, 2m, white, smooth surface	903-0227-00
Cable, DVI-DVI, 2m, white, smooth surface	903-0204-00
Audio Cable, 1.5m	903-0168-00
VS15XAD Operations Manual	020-0158-00

Resistive touch products also include the following item:	
Touch Screen Cable, 2m, white, smooth surface	903-0233-00

Additional cables and accessories are also available.	
Cable, DVI-VGA, 3m, white, smooth surface	903-0228-00
Cable, DVI-VGA, 3m, black, smooth surface	903-0229-00
Cable, DVI-VGA, 10m, white, smooth surface	903-0230-00
Cable, DVI-DVI, 3m, white, smooth surface	903-0231-00
Cable, DVI-DVI, 10m, white, smooth surface	903-0232-00
European Medical Grade Power Cord, 3m	903-0251-00
U.S. Medical Grade Power Cord, 3m	903-0169-00
Touch Screen Cable, 3m, white, smooth surface	903-0234-00
Touch Screen Cable, 10m, white, smooth surface	903-0235-00
Universal Mounting Plate	501-0301-01
Planar Desk Stand	501-0348-00

North & South America Sales	Europe & Asia-Pacific Sales
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